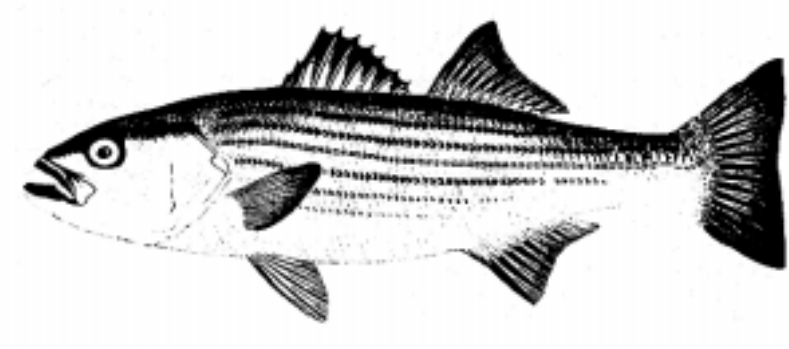
TEMPERATE BASS FAMILY—PERCICHTHYIDAE

White bass and striped bass are the only members of this family present in inland waters of California. Both were introduced. Striped bass occur in both fresh and salt water, while white bass are a freshwater form.

White perch, yellow bass, kelp bass, and giant sea bass also are members of this family.

STRIPED BASS

Morone saxatilis



DISTINGUISHING CHARACTERISTICS

Body silvery with about seven dark longitudinal stripes. Back olivaceous. The two dorsal fins are separate. Depth of body less than ⅓ standard length, in contrast to deeper-bodied white bass. The soft rays in the second dorsal fin usually number 11 or 12. Two parallel patches of teeth occur on the base of the tongue in contrast to the single patch of the white bass.

DISTRIBUTION IN CALIFORNIA

Striped bass were first introduced into California in San Francisco Bay in 1879. They soon established a strong reproducing population. Stripers were first introduced into landlocked waters in 1955 at Millerton Lake and 1959 in the Colorado River. The Colorado River is the only landlocked water where striped bass have been able to maintain a viable fishery with natural spawning. The fish have been planted in additional reservoirs such as Camp Far West, Yuba County; San Antonio Reservoir, Monterey County; Lake Mendocino, Mendocino County; and New Hogan Reservoir, Calaveras County, but these populations are maintained by stocking. Populations of striped bass in San Luis Reservoir, Merced County; Pyramid and Quail Lakes, Los Angeles County; and Silverwood Lake, San Bernardino County, are maintained with juvenile fish which enter with the water pumped from the California State Water Project System.

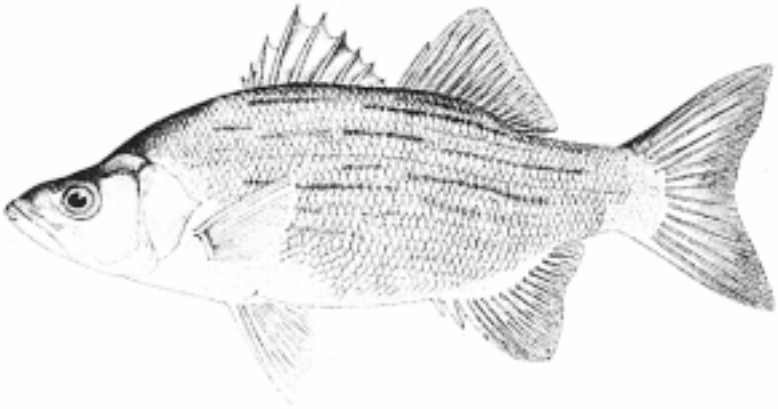
LIFE HISTORY NOTES

Striped bass are schooling, open-water fish native to the East Coast of North America. They are very adaptable and can exist in fresh, brackish, or salt water throughout the year and can tolerate cold ocean temperatures as well as warm waters to about 95°F.

Striped bass spawn in moving water at the headwaters or shoals of reservoirs or in rivers when water temperatures are between 60 and 68°F. Continuous current is an important factor in hatching success as the semibuoyant eggs must be kept in constant motion, off the bottom, and well oxygenated. Young stripers feed on a wide variety of invertebrates and turn to a larval fish diet during their first year. A large forage fish population is necessary for their success in reservoirs. Striped bass in some inland waters grow faster than ocean-run fish during their first 2 years of life and then somewhat slower after that. They can attain sizes over 100 lb but bass weighing 50 lb are rare. After five growing seasons landlocked bass are nearly 30-in. long and weigh about 10 lb. Bass 17 years old have been recorded.

Successful rearing of striped bass in hatcheries is difficult and high mortalities can be expected. Many of the early problems have been overcome, however, at the Department Central Valleys Hatchery, and many inland waters have enjoyed juvenile striped bass introductions from this facility.

WHITE BASS
Morone chrysops



DISTINGUISHING CHARACTERISTICS

Body silvery, sides with about seven longitudinal stripes. Dorsal fins separate. The soft rays in the second dorsal fin usually number 13 or 14. Depth of body more than ⅓ standard length (tip of mouth to beginning of tail fin), in contrast to the slimmer striped bass. Mouth crappie-like. A single patch of teeth occur on the base of the tongue in contrast to the two parallel patches of teeth in the striped bass.

DISTRIBUTION IN CALIFORNIA

White bass are native to the Mississippi River drainage from Minnesota and Wisconsin to the Gulf of Mexico, Gulf coastal rivers from Mississippi to northern Mexico, and in the Great Lakes, except Lake Superior, and eastward into the St. Lawrence River basin. They were first introduced in 1965 from Nebraska into Lake Nacimiento, San Luis Obispo County. Additional lots from Oklahoma, Utah, and Nevada were stocked in the reservoir in 1966, 1967, and 1968. At first no reproduction was evident, but by the summer of 1971, white bass dominated the fishery. In the late 1960's, they were introduced into the lower Colorado River, but apparently did not reproduce as they are not caught there now. A few

of the originally planted fish were taken, however, including the current state record white bass. They were illegally introduced into Kaweah Lake, Tulare County, where a self-sustaining population has become established. A moratorium has been placed on further introductions of this species by the Department of Fish and Game because of possible damage to the sport fishery in Delta waters should the white bass become established there. This is the only species of fish which by law must be killed immediately when taken.

LIFE HISTORY NOTES

White bass have developed large populations in reservoirs, but are not as important in rivers. They thrive over a wide range of limnological conditions. Preferred habitat is deep water over sand, gravel, and rocky areas. Young fish avoid dense vegetation and shallow water over muddy substrates. On bright days, the fish stay offshore in deep water and feed on threadfin shad until just before dark when they move inshore. They travel and spawn in large schools. Spawning takes place in running water or in shoal areas in lakes at temperatures ranging from 58 to 75°F. The eggs sink and adhere to the substrate; a firm substrate is considered necessary for spawning success. No nests are built and there is no parental care of eggs or young.

White bass feed on a wide variety of invertebrates and fish, and a large forage population is essential for their success. They rarely reach 4 lb and few live more than 4 years.